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DECEMBER WEATHER AND FARMING OPERATIONS

A radio talk by J. B. Kinder, meteorologist, Weather Bureau, delivered through WRC and 39 other radio stations associated with the National Broadcasting Company, January 7, 1931.

How-do-you-do, Friends: The Year 1930 has passed into history, and it may be of interest to briefly review its outstanding weather features. As reports for the full year become available, the seriousness of the drought becomes more and more emphasized; it easily takes first place for severity in the climatological history of the country. Beginning in December, 1929, with deficient rainfall in the middle Atlantic area, including the Virginias and Maryland, it spread in March westward over the Ohio and middle Mississippi Valleys, to be followed in April and May by marked dryness over an extensive area from the middle Mississippi Valley eastward to the Atlantic Ocean. In the Virginias and Maryland the deficiencies in rainfall in December, 1929, was the beginning of a series of 13 consecutive months of dryness in those States.

June brought the beginning of the drought to the lower Mississippi Valley and adjoining sections. In this month four States -- Louisiana, Arkansas, Tennessee, and Mississippi -- had an average of only 20 per cent of normal rainfall, while large shortages continued in districts to the northward and eastward.

East of the Rocky Mountains, July was the driest month of the year, with only Georgia and New England having as much as normal rainfall, while fifteen States had less than half the normal amount, with an average deficiency of 66 per cent. Nine States had the least precipitation of record for July. In addition, this month was extremely warm, with every State reporting, at one or more stations, temperatures of 100 degrees, or higher, and the highest of record in Alabama, Florida, Virginia, Maryland, West Virginia, Indiana, Kentucky, Mississippi, and Tennessee, while several others equalled the previous high.

The drought continued rather generally in August, with 35 States having deficient rainfall, and Virginia, Maryland, Pennsylvania, and Minnesota, the lowest of record for the month. The first half of August was also abnormally warm, with every State again reporting temperatures of 100 degrees, or higher. East of the Rocky Mountains there was a period of seventy days, from the 17th of June to the 25th of August, with temperatures of 100 degrees, or higher, reported every day from one or more stations. In most States the maximum temperature for the summer ran from 110 degrees to 115 degrees.

During the fall months the drought was mostly relieved in the South and mid-West, but from the Ohio Valley northward and eastward rainfall continued deficient. December was generally dry, especially in the interior valleys, where large areas had only about one-fourth to less than half the normal amount precipitation. The month was warmer than normal in most sections of the country.

With preliminary data now available for December, and complete records for the rest of the year, it is shown that 1930 was the driest of record in 20 States, including the New England group, New York, Pennsylvania, New Jersey, Maryland, Delaware, Virginia, West Virginia, Tennessee, Kentucky, Ohio, Indiana, Michigan, Missouri, and one -- Oregon -- in the far Northwest. East of the Rocky Mountains, only three States -- Nebraska, Kansas, and Florida -- had as much as normal rainfall for the year; the driest group includes Kentucky, 60 per cent of normal; West Virginia and Virginia, each with 59 per cent; and Maryland, 56 per cent of normal. In these States it was not only the driest year of record, but the 1930 rainfall was from 20 to 30 per cent less than the previous low.

The actual water shortage, or the difference between that afforded by the rain that did fall and the normal, was enormous for this record-breaking drought. Including the New England group, 33 States east of the Rocky Mountains had deficient precipitation each month for periods ranging from two months to the entire year, and the total shortage for these during the droughty period was more than seven hundred billion tons of water. For the Potomac and Ohio Valleys alone the shortage was nearly three hundred billion tons, and for this area, in general, for each 100-acre farm, for the three summer months, it was about sixty thousand tons. This means that, if a farmer with 100 acres of land, would have attempted to supply the shortage of water on his farm by pumping or hauling, it would have been necessary to provide one ton of water every two minutes, day and night, throughout the season. With these figures in mind, which emphasize the enormous amount of energy Nature must expend to extract such vast quantities of water from the air, the puny efforts of the would-be rain maker, become pathetic. Any device of man to duplicate Nature's rainmaking processes, and break such a drought as this, has about the same chance of success as to strike the Washington monument with the palm of one's hand and expect it to fall.